

ABSTRACT OF THE DISCLOSURE

5 A motor includes a cylindrical magnet, first outer
magnetic pole portions which are formed by gapping part
of a cylinder from the distal end in the axial
direction of the motor and oppose the outer
circumferential surface of the magnet, second outer
10 magnetic pole portions which are formed by gapping part
of a cylinder from the distal end in the axial
direction and oppose the outer circumferential surface
of the magnet, first inner magnetic pole portions
opposing the inner circumferential surface of the
magnet, second inner magnetic pole portions opposing
the inner circumferential surface of the magnet, a
15 first coil which is located at a position between the
first outer magnetic pole portions and the first inner
magnetic pole portions in the axial direction of the
magnet and excites the first outer magnetic pole
portions, a second coil which is located between the
20 second outer magnetic pole portions and the second
inner magnetic pole portions on the opposite side to
the first coil in the axial direction of the magnet and
excites the second outer magnetic pole portions, and an
annular member which is in contact with the inner
circumferential surface of the magnet and fits with at
25 least the first inner magnetic pole portions or second
inner magnetic pole portions.